

A Work Project, presented as part of the requirements for the Award of a Master's degree in Finance from the Nova School of Business and Economics.

MANAGEMENT ACCOUNTING FIELD LAB:

IMPLEMENTATION OF THE BALANCED SCORECARD FOR THE HYBRID
ORGANIZATION *SEMEAR BIPP*

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Abstract

Throughout a 4-month period, a consulting project was developed with a Portuguese hybrid organization, *Semear BIPP*, which had the goal of assisting the organization in its managerial accounting challenges. To address those challenges, management accounting tools were developed in Microsoft Excel and are aimed at improving the organization's decision-making process and performance measurement process. The present Work Project particularly describes the designing and implementation of one of those tools, the Balanced Scorecard. A strategy management framework which helps managers to effectively implement strategy by working as a communication, performance measurement and strategy management tool.

Keywords: Consulting Project, Hybrid Organization, Management Accounting Systems, Balanced Scorecard

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I. Group Part

1. Introduction

Management accounting systems have gone through many changes over the last 150 years. During the industrial era from the mid-19th to early 20th century large enterprises used “extensive management accounting systems to provide information on the efficiency and effectiveness of their decentralized operations” (Kaplan, 1998, p.7). Both Johnson (1992) and Kaplan (1998) are critical of traditional management accounting systems being replaced with financial accounting information in the period after World War II. This information laid the groundwork of controlling managers by setting cost targets and resulted in a sharp decrease in the relevance of the management accounting profession. It presented a shift from the approach embodied during the industrialized era during which companies used both financial and non-financial information for their management accounting systems without imposing target levels on performance or costs measures (Johnson, 1992, p.18-19).

One of the most influential CEOs of that time was Henry Ford, the founder of Ford Motor Company, who once famously said that “business must be run for profit..., else it will die. But when anyone attempts to run a business solely for profit and thinks not at all of the service to the community, then also the business must die, for it no longer has a reason for existence” (Johnson, 1992, p.28). His words still remain as true today as they were back then, particularly in the context of the rise of hybrid organizations, which are defined as “social enterprises that combine the organizational forms of both business and charity” (Battilana et al., 2014, p.397) and pursue a “social mission while engaging in commercial activities in order to generate revenue to sustain their operations” (Gibson, 2013).

The trade-off between social and commercial aims can be observed, for instance, when an organization faces a decrease in sales but decides not to lay off any employees even if that were to make the most economic sense. The balance between achieving the social mission and

aiming to be profitable always needs to be analysed carefully to guarantee the stability of the organization. Battilana and Lee introduced the term “Hybrid Organizing” (2014) which explains ways in which hybrid organizations can achieve that healthy balance. For instance, profit-seeking activities should be set up so that they share costs with activities which are performed to achieve the social mission or employees should be hired who can contribute to both the social and the commercial aspects of the organization.

This Work Project recaps a 4-month management accounting consulting project at the hybrid organization *Semear BIPP*, which was created in 2005 by several Portuguese parents who raised children with Intellectual and Development Disabilities (IDD) to promote social inclusion and job placement for children and adults with these kinds of disabilities. Aiming at changing the perception of how society, mainly enterprises, recognize the competences of people with IDD, the organization developed a program called “*Semear – Terra de Oportunidades*” in 2014. Currently, this program is composed of three different business units. The first one is called *Semear Academia* which has existed since the beginning of the program. It was created to provide training sessions to people with IDD to empower them with professional as well as soft skills so that they could effectively join the labor market. A few years later *Semear Mercearia* and *Semear Terra* were connected to the program. Both business units assist *Academia* in giving financial support as well as in achieving the organization’s social mission. On the one hand, they are engaged in for-profit operations and their earnings are used to pay expenses for the training programs. On the other hand, they provide a practical stimulus to the students from *Academia* by incorporating them into their operational tasks. Each business unit will be introduced in more detail in the following sub-sections.

1.1. Semear Academia

Individuals with IDD can join three separate training programs which are referred to as degrees. The first degree is called *Academia I* which is a continuous program and offers general

teachings on a variety of subjects such as History, English, and Math. Students are required to pay a fee to attend the courses. The degree *Academia 2* also charges students a fee which varies based on their family's household income, whereas *Academia 3* does not. As a result, this degree is dependent on a grant from an institution of the Portuguese government called *Instituto de Emprego e Formação Profissional* (IEFP), which covers a portion of the costs incurred, especially direct student expenses for travel and meals.

Both *Academia 2* and *Academia 3* provide more practical training which prepare the students for the job market and give them more autonomy in their professional and personal lives. To achieve this, certified technical and on-the-job courses in the areas of commerce, agriculture and food industry can be taken. In addition, students can choose to attend soft skills training and private coaching sessions. The objective is to teach students to perform routine tasks which are easy to remember and to improve their confidence to clearly communicate with supervisors, so they can provide value to any organization.

Semear Academia collaborates with about 25 businesses in the greater Lisbon area which are willing to employ its students. As of December 2020, *Semear Academia* has helped to integrate more than 37 people with disabilities into the labor market and currently has 50 students signed up in the three degrees.

1.2. Semear Mercearia

This business unit cooks, prepares, and sells gourmet artisanal products, for instance jams, cookies, and olive oils. The products can be grouped into three categories. First, products which are bought from a supplier and sold directly to the consumer without any further processing are labeled 'P1' products. Secondly, 'P2' products are classified as those goods which after being purchased externally are fully fitted with labels, covers and sealing strips before they are sold to the end-consumer. Finally, 'P3' products are cooked in the kitchen with ingredients received through donations or purchased from suppliers and are afterwards fitted

with various materials. Some ingredients are collected from other organizations which would otherwise waste them. Any of these three categories of products can be bought either as individual items or together with other products in bundles referred to as “cabaz” which can be customized according to the client’s preferences. These bundles represent the majority of the sales revenues from *Semear Mercearia*.

Semear Mercearia’s selling proposition involves offering products to companies which are willing to buy them as gifts for their employees for the Christmas holidays. Over the last couple of years roughly 90% of annual sales revenues were generated from sales made in December. The objective of this proposition is to limit uncertainty and more accurately predict production volume. As a result, the management team spends three months - January, February, and March - getting in touch with former as well as potential customers to work out deals for December purchases. All the products sold are produced between the months of April to November and assembled for delivery in December. Furthermore, *Semear Mercearia* operates an online store and from 2021 onwards it plans to start production in January to meet estimated online sales demand for the first three months of the year.

1.3. Semear Terra

The goal of *Semear Terra* is to grow and sell organic vegetables. It guarantees that the production is sustainable and follows a natural process. The organic produce is grown on a 12 hectares (120,000 square meters) plot of land. As the quality of the soil varies by season, only 3.5 hectares can be used at once, as the other land is not suitable for growing produce. However, the unused land is available to be rented for children’s birthday parties or corporate workshops.

Five different types of baskets are offered for sale. Three of these include some of the organic vegetables while one features fruits in addition to the vegetables and the fifth consists of eggs and fruits paired with the vegetables (see Appendix 2). Fruits and eggs are bought from external farmers and vary with each basket. The idea behind this strategy is to enhance

community partnerships between farmers as well as to increase the variety of the baskets. The fruits and eggs are always planned to be bought at the same price regardless of the specific type purchased.

In previous years, *Semear Terra* predetermined which vegetables were placed in the baskets for two six-month periods. In the six spring and summer months, all the baskets had the same content of vegetables every four weeks and it followed the same procedure for the fall and winter months. However, due to the fact that the quality and quantity of the actual harvest deviates from the expected one, the planned content of the basket could not be achieved with their own vegetables but had to be bought externally. In order to minimize this effect, the consulting team constructed a model which allows *Semear Terra* to customize the baskets for the consumers according to the actual harvest currently available. In addition, in the summer of 2020, *Semear Terra* started its collaboration with the app “Too Good to Go”. App users can purchase at a lower price products which *Semear Terra* has been unable to sell during the expected selling period and are now at risk of being wasted.

To maximize the positive impact of this consulting project, managers of each business unit needed to become accustomed to using technologies more effectively in order to improve the efficiency and decision-making capabilities of their operations. The next section describes how technological change impacts the management accounting profession and what was achieved to assist Semear in improving its technological development.

2. Management Accounting and the Digital Transformation

A Deloitte study from 2019 highlights that “the use of data and analytics to find insights that help organizations become more efficient” (Gurumurthy et al., 2019) is a pivotal step in implementing a successful digital transformation. According to Kaplan (1998) the main goal of management accounting systems is to provide managers with information which they view relevant to make timely, efficient, and effective decisions. Thus, the digital transformation

process and the responsibilities of management accountants are closely linked, and tremendous value can be unlocked when organizations understand the added benefits of becoming more technological savvy and data driven. To further underscore this relationship, the Institute of Management Accountants has updated its 'Management Accounting Competency Framework' to include a 'Technology & Analytics' domain citing that "technology is redefining the role of the management accountant while also significantly changing the business landscape [...] at an unprecedented speed" (IMA, 2019).

A paper published in 2020 by the Institute of Management Accountants and Deloitte notes that many organizations still use accounting processes which require a significant amount of manual input. (Gibson et al., 2020). This raises the question as to how automation can be integrated into those processes. Lawson (2020, p. 30) believes that "repetitive, time-consuming tasks that must be performed consistently yet quickly" are most suited for automation and are a good starting point to deploy new or upgrade existing technologies.

At *Semear* a multitude of tasks were discovered which had not been automated when the consulting project began even though they were performed on a regular basis. For instance, the management team of *Semear Mercearia* had to repeatedly sift through a Microsoft Excel worksheet to know how many kilograms of each ingredient were required to produce a particular product. The information was not instantly available and is one of many examples of how a lack of automation leads to slower access to data.

Therefore, the objective of this project was to build a management accounting system by creating insightful and highly automated data analytics models in Microsoft Excel. Microsoft Excel was chosen as the technological tool for two key reasons: first, the program has been used in previous years which lead management to acquire a decent knowledge on how to operate it and secondly it is sufficient to fulfill all the objectives of the project without having to purchase a new software and incur additional costs. This decision was made taking into account

Monteiro's (2020) observation that in today's world many businesses cannot "resist the temptation and the hype of buying new technologies" even though the main goal of a business is to match the IT solutions to its business needs. The following section details how Microsoft Excel was used to set up an automated management accounting system for *Semear*.

3. The Final Output

The contents of the system were decided upon through a series of interviews and meetings with the management team in the early stages of the project. The objective was to understand the organizational challenges *Semear BIPP* faces in order to define the specific aspects of the project. A costing system, operating budgets and a Balanced Scorecard emerged as the main components of the system. During the project, additional meetings were used to present the designed Microsoft Excel models and clarify any doubts both sides had (see Appendix 3 for a list of the meetings). This led to a fruitful relationship between management and the consulting team and ensured the smooth and accurate execution of the project's objectives.

A Balanced Scorecard was developed for each business unit and *Semear* as a whole entity in a single Microsoft Excel workbook. This allows management to quickly track if and to what extent performance targets of all business units are being met without switching between multiple files. Both the operating budgets and the costing system are included in the same workbook, but separate ones were created for each business unit. The reason to separate by business unit is based on the fact the business units operate independently and the respective managers only need to use the file which contains the budgets and costing system of the business unit they are leading. Additionally, automated invoice registers were built to assist the management accounting system. One was created for each business unit in a separate Microsoft Excel workbook and is intended to be used to record each operational transaction which occurs throughout the year. Aside from the three invoice register workbooks, each workbook consists

of databases, engines, and dashboards. In the following sub-sections these elements are explained in more detail before moving on to describe the set-up of the invoice registers.

3.1. Databases

At the beginning of the consulting project, *Semear* provided the authors with its original Microsoft Excel workbooks which contained sales budget data, actual overhead costs, payroll expenses and product overviews. All the values were hardcoded, which means that they were not linked to a structured database but rather were inserted directly into a database which was simultaneously used as the analysis tool. This structure made it infeasible to construct automated data analytics models because in the case that a value had to be changed, the user would overwrite the previous value with the new one making any analysis and comparison between values over time impossible. In order to tackle this problem, the databases were separated from the analysis worksheets. Each set of values, whether the selling price of a product or the salaries of the employees, was stored in a distinct database which included a time dimension. Every data entry was linked to the week, month and year in which it is made, which resulted in a management account system which gave the user complete access to historical, present and future data, which is essential for sound operational decision-making.

Without the proper usage of each database, the various interactive dashboards would not return the correct up-to date information. In order to assure accuracy, it was of the utmost importance that the data entries follow the guidelines established in the “ReadMe” instructions visible in the first worksheet of each workbook. If information in the databases was missing or data entries were made in the wrong cell(s), the data displayed in the automated models would be inaccurate and misleading. The user might not know about this misfortune, so it is crucial that the person responsible for the data entries works with great care, patience, and diligence. Otherwise, the analysis made by management would be meaningless as the results observed in the dashboards would be based on false or partially incorrect data.

A database is also beneficial for the purpose of data storage. As the format of all databases remains unchanged, they precisely reflect each data entry as it was originally made. As a result, the databases provide historical information which can be accessed at any point in time. If for instance, the organization is faced with legal or regulatory compliance issues in the future, the user can obtain the data in a particular database, without the need to spend time trawling through paperwork or unorganized Microsoft Excel worksheets.

3.2. Engines

In order for the databases to be converted into insightful, clean and straight to the point dashboards, many calculations had to be performed. The user does not need to see or interact with these calculations in order to view an accurate dashboard. Instead, it is important that the calculations cannot be edited ad-hoc, deleted, or otherwise compromised by anybody. Therefore, all the calculations were hidden from the view of the user. This was a necessary step to guarantee that the models work properly and will not display any error messages.

3.3. Dashboards

The final results of the calculations performed in the engine can be accessed in the various dashboards. The dashboards are fully automated data analytics models which update 100% automatically once new data entries have been made into a database which the dashboard is linked to. One advantage of the dashboards is the user's ability to access different results within one dashboard. In Microsoft Excel this can be done by applying data validation, a service which requires little human interaction (Appendix 4). In practice, similarly to a survey, the user only needs to select the desired choice from a list of options. The dashboard will then display the resulting information instantaneously and can perform this task for all options in the list as many times as necessary in a few seconds.

With the development of automated dashboards, management has instant access to insightful data, which can be used to plan, control, measure, and analyze operations. It is up to

the user to decide which information should appear on the screen. Any decision-maker can now draw conclusions from data which is guaranteed to be timely and accurate.

3.4. Invoice Registers

The invoice registers were established to smoothen the process of recording actual operational data throughout the year. This includes purchases made for direct materials, the production and selling of products as well as the registering of students to classes. The entries made in the register were automatically posted into a separate worksheet to form a database. This data was then used to perform automated calculations in another worksheet which returned all the results needed to perform certain analysis in the other workbooks, for instance calculating variances or the evaluation of performance measures. To guarantee the timely and accurate transfer of those results from the invoice register workbooks to the other workbooks, the user needs to copy the results to their predetermined cells. This process is defined in the 'ReadMe' in both the invoice register as well as the other workbooks. The decision to 'outsource' the three invoice registers into separate Excel workbooks was made on the premise that all the invoice register workbooks contain Visual Basic Applications. This results in large file sizes and would make all the calculations in the engines of the other workbooks lengthy and difficult to process. For larger organizations with bigger cloud systems, the seven Excel workbooks could have been combined into one.

II. Individual Part

4. Consulting Project Introduction

Throughout a 4-month period, a consulting project has been developed with a Portuguese hybrid organization, *Semear BIPP*, the following sections of the present Work Project describe the process of designing and implementing one of the management control tools previously mentioned, the Balanced Scorecard, aimed at tackling a particular organizational problem.

By being a member of the first edition of the Social Leapfrog Program¹ from NOVA SBE, *Semear* seeks to leapfrog in terms of social impact and financial sustainability. The organization has been creating a positive and meaningful impact on the lives of individuals with IDD, by integrating them in social business activities and helping them in joining the labor market. However, *Semear* still relies heavily on private and public funding as its revenues through the sales of products and services only amount to 50% of its total financial resources. To consistently grow and achieve its desired social and financial objectives, it is fundamental that the organization enhances its strategic management tools to identify any underperformed critical process or activity so that the management team can react accordingly to those findings to guarantee that the strategic objectives will be achieved.

This second chapter is structured in six sections. Section 5 describes the specific organizational problem which aims to be tackled. In Section 6, the literature on the Balanced Scorecard is reviewed. In Section 7, the rationale behind the Balanced Scorecard for each business unit of *Semear* is described. Section 8 outlines how those Balanced Scorecards were incorporated in an Excel Model and finally, Section 9 presents the main conclusions of this chapter and presents future recommendations.

5. Organizational Problem

Semear BIPP lacks an adequate performance measurement system which tracks the continuous progress of the performance indicators of their key activities and financial results. Instead, the measurement process is quarterly done on an ad hoc basis by the top management team and the manager of each business unit. Additionally, there is an over-reliance on outcome measures such as the number of students who joined the labor market, tons of food waste reused, tons of biological products produced and revenues. Although it is relevant to understand how

¹ The Social Leapfrog Program is a pioneer reflection and capacitation program whose goal is to make 10 social hybrid organizations leapfrog in terms of impact and financial sustainability.

these measures evolve over time since they directly track the progress of *Semear*'s main results, they do not provide any information regarding the current performance of *Semear*'s operational activities and customers' relationships. This means that there can be inefficient processes which are crucial for the success of *Semear*'s strategy, but since they are not being measured, those underperformed processes are kept hidden from the management's view.

At the time of this Work Project, *Semear* was at a moment of strategy formulation for the period between 2021 and 2023. This process of strategy formulation is developed by the top management team and by the coordinator of each business unit. Then, it is the responsibility of each coordinator to communicate to the rest of the workforce the strategy plan. In this type of organizations, strategy plans consist solely of a list of objectives and initiatives that the organization desires to achieve, but there is not anything which tells how they intend to achieve those objectives (Niven 2008). There is not a clear picture of how the strategic objectives will be accomplished and how employees' activities will adjust according to the strategic plan. Hence, there is a risk that strategy will not be clearly understood by the entire workforce, which can generate a misalignment of actions and behaviours within the organization.

Research identifies a significant number of strategies which fail in the implementation phase (Atkinson, 2006). Atkinson identifies three main factors that separate companies from successfully implementing their strategy: the lack of organizational communication, poor identification of relevant key performance indicators and the role played by middle managers (2006). Hence, strategic management systems play an essential role in countering this tendency by translating strategy plans into short-term operational actions ensuring that everyone across the organization understands what to do and how they contribute to long-term organizational goals (Atkinson, 2006).

Considering *Semear*'s current context, a strategy management framework would bring tremendous value for the organization to effectively implement its new strategy and

guaranteeing an accurate and total alignment between the organization's entire workforce and long-term goals. In addition, the adopted framework should also be able to measure and monitor the progress of key performance indicators aligned with the *Semear*'s strategic objectives.

6. Literature Review

Inspired by the Lord Kelvin's premise, "If you can not measure it, you can not improve it", Robert Kaplan and David Norton introduced to the business world at the beginning of the decade of 1990 what would become a revolutionized instrument, the Balanced Scorecard. At the time companies' performance measurement systems which heavily relied on measuring financial indicators started to ineffectively manage organizations' performance given that intangible assets such as employee knowledge, customer relationships and innovation have increasingly become the primary drivers of a company's value (Niven, 2008). This way, Kaplan and Norton suggested a balanced approach in which a business' strategy and vision could be managed and measured through a mix of financial and non-financial indicators (Kaplan and Norton, 1992). Traditional financial performance measures would continue to be considered given their relevance in determining whether the company is generating wealth to its owners. However, due to its lagging characteristics, they must be complemented by non-financial measures which would track the progress of activities that drive the creation of wealth (Kaplan and Norton, 1993). Hence, the Balanced Scorecard considers two types of performance measures: lead and lag indicators. The latter only reflects the information about past periods and, as a result, lacks predictive power. Whereas lead indicators track any progress being made on critical activities and contribute to predicting future performance (Gjerde and Hughes, 2007).

Moreover, the Balanced Scorecard enables organizations to take a comprehensive view and define strategic objectives and performance measures through the lenses of four different perspectives: Learning & Growth, Internal Processes, Customer and Financial. The Customer Perspective focuses on identifying the customer and market segment which a company wants

to compete in and, subsequently, outlines the importance of responding to their needs and satisfaction. The Internal Processes Perspective identifies the operational processes which are critical to meet current and future organization's success as well as delivering the customer's value proposition. The Learning & Growth Perspective reflects the importance that continuous improvement and innovation has in the current business environment as it is the driving force that will enable organizations to achieve the objectives of the other perspectives. Finally, the Financial Perspective represents the financial outcomes which an organization expects to achieve in the long-term when the objectives of the previous perspectives were accomplished.

To guarantee that non-financial measures will be able to predict future financial performance, there is a need for a sequence of cause-and-effect relationships between the performance measures of each perspective. This way, the Learning and Growth performance measures will drive the accomplishment of Internal Processes performance measures, which in turn are the drivers of the Customer performance measures. Lastly, the Financial measures will be driven by the performance of the Customer measures.

Rapidly, the Scorecard architects have seen their tool being adopted by thousands of enterprises and being transformed from a performance measurement system to a strategic management framework (Niven, 2008). Not only were these organizations adopting the Balanced Scorecard to adding non-financial measures to the traditional financial metrics but were also communicating strategy through the objectives and measures that they have selected. Companies have been building Strategy Maps – “a one-page graphical representation of what a company must do well in each of the four perspectives in order to successfully execute its strategy” (Niven, 2008, p.15) – to communicate their strategy. In fact, a few years after its arrival, the Balanced Scorecard was hailed as “one of most influential ideas of the twentieth century by *Harvard Business Review* and has been adopted by more than half of the *Fortune 1000* organizations and the moment continuous unabated” (Niven, 2008, p.12).

7. Designing Balanced Scorecards

A feature of the Balanced Scorecard is that it can be adapted and adjusted to a for-profit, governmental, non-profit, or hybrid organization with the goal of telling its strategic story. Since *Semear* is a hybrid organization, besides the other four suggested perspectives by Kaplan and Norton, a fifth perspective, the Mission Perspective is added to *Semear*'s Balanced Scorecard. This perspective represents the social strategic objectives aimed by the organization.

Another feature is the possibility of cascading the Balanced Scorecard through lower-level units/departments. Given the different business models and market segments in which each business unit competes in, it would be beneficial for *Semear* the development of an overall Balanced Scorecard as well as cascading it through the three business units of the organization.

It is also important to mention that the *Semear*'s strategy formulation process was postponed for January 2021 due to the busy schedule in managing daily operations, specifically in *Semear Mercearia*. Hence, the designed Balanced Scorecards were built based on an initial draft of the strategic plan and the interviews carried out along this Work Project.

7.1. Strategy Map Semear

The building process starts with a review of the vision and strategy of the organization. While the vision tells where the organization sees itself in the future, the strategy should provide the answer to how it will arrive at that desired destination. By 2023, *Semear* seeks to become financially self-sustaining and continue its long path in promoting the social inclusion and job-placement of young adults and individuals with IDD. After defining the top-level objectives from the Financial and Mission Perspectives, it is important to determine how *Semear* must position to its customers. Identifying potential customers may be demanding for an organization of this type since hybrid organizations with multiple business units impact the lives of many people. According to literature, customers are defined as “a person or group who directly benefits from the company’s products or services” (Niven, 2008 p.167). Based on this, it is

assumed that the *Semear* has two main clients: the *Academia*'s students who pay a monthly fee and the end-customers who buy the products produced by the *Mercearia* and *Terra*.

The organization has been revealing difficulties in retaining both students and end-customers. There has been a relevant dropout rate of students from *Academia*'s courses. Adding up the fact that most of them do not pay the total tuition fee, only a parcel related to its household income, a significant dropout rate not only severely damages the financial position of the organization but also compromises the accomplishment of its social goal. Moreover, while a considerable percentage of the social businesses' end-customers understands the organization's purpose and the social problem it addresses, they do not adopt frequent consumption patterns of *Semear*'s products. Hence, "Increase the Customer Retention" constitutes an important strategic objective. Another strategic objective in the Customer Perspective is to "Improve the Brand Awareness". Raising awareness of the performed activities and its products will enable the *Semear* to attract new people from different audiences and potentially, turn them into clients.

After defining the objectives in the Customer Perspective, it is important to identify which processes or activities the organization must excel at. Firstly, a key aspect is guaranteeing practical participation of *Academia*'s students and people with IDD in the social business activities. If on the one hand, it constitutes an integral part of the value proposition delivered to the end-customer, on the other hand, it stimulates the practical and teamwork capabilities of those people and contributes to integrating them in a social environment, which is directly linked to the organization's mission. From an operational perspective, there is room for improvement in terms of productivity and service quality. For example, *Semear* is not producing enough in terms of quantity and quality to meet its customers' demands which results in having to pay a higher price to suppliers for a product than if they had been able to produce it. Another crucial point is the time needed to confirm an order to a client. In fact, there were situations in which this confirmation process lasted more than 5 business days due to the lack

of a proper information system technology. An improvement in those internal processes will provide a better customer experience and, as a result, increase their retention and/or satisfaction.

To enable the accomplishment of the above strategic objectives, there are three “Learning & Growth” objectives that need to be considered. Firstly, more effective communication between the entire workforce will provide a frequent movement flow of students from *Academia* to other business unit’s locations so that they can be even more involved in the various activities. Secondly, the retention of employees that embrace *Semear*’s purpose and the development of their competences will facilitate the integration of the students in the *Semear*’s community and become more expert in their activities, respectively. Lastly, the improvement of the information system technology will provide to its users better and on-time operational information to become more efficient in its daily operations and decision-making.

7.2. Strategy Map Semear Academia

Semear Academia is the business unit which truly reflects the social goal of the organization since its main priority is the social inclusion and job-placement of its students. Hence, the Mission Perspective will also be added to this Strategy Map. While *Semear Academia* will hardly become profitable in a short-medium term, it is its goal to receive more students for their private courses (*Academia 1* and *Academia 2*), and, as a result, generate more revenues from those courses and become less dependent on *IEFP*’s funds. This way, the Financial Perspective will be placed alongside the Mission Perspective at the top of the Strategy Map. To succeed in those top-level objectives, *Semear Academia* must draw attention to their relationships with the following stakeholders, the students and the partners who employ the students. This way, in this case, the Customer Perspective is replaced by the “Students & Partners” Perspective. It is essential that the organization guarantees the retention of its students as in case of dropout, not only it compromises the achievement of the social goal, but it also damages its financial position. Another important aspect is the role of the employability

coordinators in finding companies which are willing to provide job opportunities to the students. Hence, “Increase the Students’ Retention” and “Increase the Number of Employer Partners” are the strategic objectives of this perspective. By saying this, *Semear* needs to excel at the relationship with these employer partners as it is only through a frequent and effective communication that students can join and remain in their job positions.

In addition, a high-quality and tailored education service must be provided to satisfy the students and their families to overcome the issue of the students’ dropout rate. That is why student’s involvement in the social businesses activities is crucial, as it gives them the chance of participating in outdoor activities where most of the students enjoy and feel comfortable in. To enable the achievement of those objectives, it needs to exist an increase in the frequency of communication between the *Academia*’s coordinator and the coordinator of each business unit to ascertain the possibility of students joining practical activities in a monthly basis. In addition, the development and retention of fitting *Semear* workforce will enable *Semear* to improve its workforce skills in the relationship management with students and with the employer partners.

7.3. Strategy Map *Semear Mercearia*

Despite being the business unit which generates the highest sales volume, *Mercearia* has a significant seasonality of sales, with almost 90% of sales on the weeks that precede Christmas due to the popularity of its Christmas baskets. This way, the strategic priority for the future lies in continuing to increase sales volume and the number of individuals with IDD in their operational processes. Since *Semear*’s social mission is intrinsically incorporated in its processes and activities, *Mercearia*’s Strategy Map will only have the four recommended perspectives by Kaplan and Norton. Even more critical than increasing revenues, *Mercearia* seeks to increase profitability to guarantee the financial sustainability of the entire organization.

The vast majority of the *Semear Mercearia*’s customers are from corporations looking for Christmas baskets to offer to its employees. The fact that *Semear*’s baskets mean much more

than any other comparable basket as they are composed by artisanal products which had the direct participation of people with IDD and/or were produced by reusing collection surplus of local producers, has been able to distinguish itself in this market segment. To continuously generate better financial results, it is important that the Customers' Perspective objectives focus on "Increase the Customer's Satisfaction" and "Increase Brand Awareness".

The involvement of students in the *Mercearia's* operational processes is an essential component of the value proposition delivered to its customers as well as *Mercearia's* combat against food waste. Hence, they constitute two important strategic objectives in the Internal Processes Perspective. Another key strategic objective is the flexibility of choice that customers can have while selecting the products which will compose their baskets. Given this, the vast majority of these personalized baskets also include external products that *Semear* does not produce such as codfish, wines and chocolates. If the customization option is a key aspect that keeps the customer satisfied, then it is important to adopt a correct pricing strategy to those external products, as it would directly impact the desired financial outcomes. In fact, pricing discounts have been applied to products without checking whether they were being sold at loss due to the lack of a system which could provide this information. This way, there must be an update on the current information system technology in order to provide pricing and production capacity information such as the price that a product can be sold, the maximum discount rate that can be applied to a product, or even the current level of inventory. In addition, in accordance with what was previously said, the organization's social goal is intrinsically incorporated in the social businesses activities as a relevant percentage of the *Mercearia's* workforce is composed by individuals with IDD. However, due to the challenge of managing a business of this magnitude, there must be enough experienced coordinators which can deal with the most challenging tasks as well as provide support and guidance to the rest of the workforce.

7.4. Strategy Map Semear Terra

The profits generated from this business unit are still scarce and, there are still some edges that must be polished in terms of production and customer's retention. This way, the strategy for the upcoming years lies in the achievement of the financial sustainability and increase in the production of biological products. Similarly to *Semear Mercearia*, the social mission of *Terra* is incorporated in its daily activities and processes as *Academia*'s students also participate in these processes and part of *Terra*'s workforce is composed by adults with IDD. Hence, *Semear Terra*'s strategy will be viewed through the traditional four perspectives. As it was mentioned above, the strategic objective in the Financial Perspective is to "Achieve Financial Sustainability". As recent years have been characterized by inconstant profitability then, improving the financial position of *Terra* will be aligned with the overall strategy of the organization. A significant percentage of *Terra*'s clients are individual customers who purchase its basket of fresh organic products via the website and receive it at home in a pre-defined weekday depending on their location. Even though the customers understand the value-added of these baskets, this is not translated into a frequent consumption pattern. Hence, a strategic objective of the Customer Perspective is to "Increase Customer's Retention" by understanding their preferences and construct a solid relationship with them. Another strategic objective is to "Improve Brand Awareness" as raising awareness of the activities performed by *Terra* could attract new range of customers and, as a result, increase *Terra*'s customer portfolio.

The practical participation of people with IDD in the production process is a crucial component of the value proposition delivered to customers, and, as a result, it is an important strategic objective of the Internal Processes Perspective. Besides this, *Semear Terra* must excel at the production of biological products in terms of quantity and quality. Only 30% of the number of hectares available are being used, meaning that an increase in the capacity utilization would increase the number of tons of products produced. This, in turn, would reduce the cost

of purchasing products to suppliers to complement the variety of vegetables in the baskets sold. Additionally, it is also important to ensure that this process is equipped with the most recommend tools and practices to minimize the percentage of defective products. Finally, increasing the operations' efficiency in terms of productivity and lead time will enable the organization to serve better and satisfy its customers and, potentially, build successful and long-term relationships. To accomplish the above strategic objectives, it is required an investment in new materials and equipment such as water irrigation and greenhouse systems which can enhance performance in the production process. Another strategic objective in the Learning & Growth Perspective is the improvement of the current technology systems since *Terra* lacks an adequate system to facilitate planning the daily home-delivery travels and indicate what the most recommended route is. Finally, similarly to *Mercearia*, there must be an equilibrium ratio of people with IDD in the workforce so that they can be supported by experienced employees.

7.5. Performance Measures, Targets, and Initiatives

After building the Strategy Maps, the next step lies in defining strategic performance measures for each strategic objective and associating an expected level of performance (target) to each measure so that the company understands whether the desired level of performance is being met. The final step of the designing process is the identification of a set of initiatives such as actions and programs that are developed to ensure this level of performance is met or even exceeded. The Appendixes 5, 6, 7 and 8 describe in detail the designed Balanced Scorecards.

8. Implementation of the Balanced Scorecards

It was also the purpose of this Work Project to facilitate the integration of this strategy management framework in the organization. Hence, an Excel Model, which incorporates the designed four Balanced Scorecards, was developed under the organization's needs and preferences. The main worksheet of this model – Dashboard - was exactly designed to meet the three main functionalities that the adoption of a Balanced Scorecard brings to any organization,

communication, performance measurement and management of the strategy. The Dashboard allows the user to choose a Balanced Scorecard, a Perspective, and a particular Strategic Objective or all Strategic Objectives of the chosen Balanced Scorecard and Perspective. Based on those three choices, it will prompt out a table with the performance measures of the selected strategic objectives as well as the associated target, current result and person responsible for measuring those measures. Then, the model automatically compares the target with the current result and indicates whether the business unit has been succeeding on those selected performance measures (see Appendix 9 and 10). If the expected performance has been met, it will show up a green tick. In the opposite scenario, a red cross will appear. The Dashboard also includes another feature where the user can select a specific performance measure and check the corresponding list of initiatives on course and plans to implement in the future.

Additionally, the Dashboard includes a button which automatically generates the strategy map of the Balanced Scorecard selected at the given moment in a pdf format. This map contains both strategic objectives and performance measures since the strategic objectives will tell the *Semear's* strategic story and the performance measures will indicate how employees' operational activities are aligned with the strategy. Then, the goal lies in distributing those strategy maps to everyone across the organization so that a clear picture of *Semear's* strategy can be efficiently transmitted to them as well as the activities and processes in which they must focus on.

Collecting information for 62 performance measures and managing them is not feasible for just one person. It is then essential that this activity is wisely distributed across the top management team and the manager of each business unit. To facilitate this process, each performance measure was already decomposed in the variables needed so that it can be computed. Hence, the users just need to insert the correct data and both engine and dashboard will automatically update. Lastly, a Data Dictionary was incorporated in the model in order to

assist the user in understanding the rationale behind the strategic objectives, the performance measures, the data source from where information can be extracted or even how a performance measure is being computed (see Appendix 11).

9. Conclusion and Recommendations

In conclusion, this Work Project drew top management attention to the fact that not only were *Semear's* performance measures mainly focused on results but also the strategy plan was composed by a list of initiatives and desired financial objectives. This means that there was not a clear explanation of how those objectives were planned to be achieved. This way, the implementation of a strategy management system seems to come at the perfect timing considering the current size of *Semear*, the inexistence of any strategy management tools and the fact that the organization is currently formulating its strategy for the upcoming years. The Balanced Scorecard fits the needs of *Semear BIPP* by providing the tools to effectively measure and manage the organization's strategy and to facilitate its communication.

In fact, what the Balanced Scorecard truly brings to the organization is this “fundamental change in the underlying assumptions about performance measurement” (Kaplan and Norton, 1992, p.9). By putting strategy and vision at the centre, management identifies the critical operational elements of its strategy and sets cause-and-effect linkages between them. Then, they select relevant strategic performance measures. This way, there will be a criterion in the selection of initiatives since only those which are intended to improve the performance of those measures and, as a result, accomplish *Semear's* objectives should be executed.

The model was tailored to *Semear's* needs and context as it also contains theoretical explanations, practical examples and instructions. Even though *Semear's* strategy may suffer some adjustments when the strategy formulation process is concluded and future challenges arise such as identifying and measuring new performance measures and target values, the top management can follow the methodology applied and update the Balanced Scorecard.

III. References

- Atkinson, Helen.** 2006. "Strategy implementation: a role for the balanced scorecard?" *Management Decision*, 40 (10): 1441-1460. doi: 10.1108/00251740610715740.
- Battilana, Julie, and Lee, Matthew.** 2014. "Advancing Research on Hybrid Organizing – Insights from the study of Social Enterprises". *The Academy of Management Annals*, 8 (11): 397-441. doi:10.1080/19416520.2014.893615.
- Gjerde, Kathy A. Paulson, and Susan B. Hughes.** 2007. "Tracking Performance: When Less is More." *Management Accounting Quarterly, Fall 2007*, 9 (1): 1-12.
- Gibson, Amanda.** 2013. "Research finds rising numbers of 'hybrid organizations' across sectors ". *Devex*. Accessed on December 12, 2020. <https://www.devex.com/news/research-finds-rising-numbers-of-hybrid-organizations-across-sectors-81297>.
- Gibson, B. Ashley, Kaplan, Beth, and Cutbill, David.** 2020. "From Mirage to Reality: Bringing Finance into focus in a digital world". *Deloitte and the Institute of Management Accountants*.
- Gurumurthy, Raga, and Schatsky, David.** 2019. "Pivoting to digital maturity. Seven capabilities central to digital transformation". *Deloitte*.
- IMA.** 2019. "IMA Management Accounting Competency Framework". *Institute of Management Accountants*. Accessed December 22, 2020. <590889ef44ad401bb94d83cd43e584b8.ashx (imanet.org)>.
- Johnson, H. Thomas.** 1992. *Relevance Regained: From Top-Down Control to Bottom-Up Empowerment*. New York: The Free Press.
- Kaplan, Robert S., and Atkinson, Anthony A.** 1998. *Advanced Management Accounting, Third Edition*. New Jersey: Prentice Hall.

Kaplan, Robert S, and David P Norton. 1993. "Putting the Balanced Scorecard to Work." *Harvard Business Review* p. 135-147.

Kaplan, Robert S., and David P. Norton. 1992. "The Balanced Scorecard - Measures That Drive Performance." *Harvard Business Review* p. 1-10.

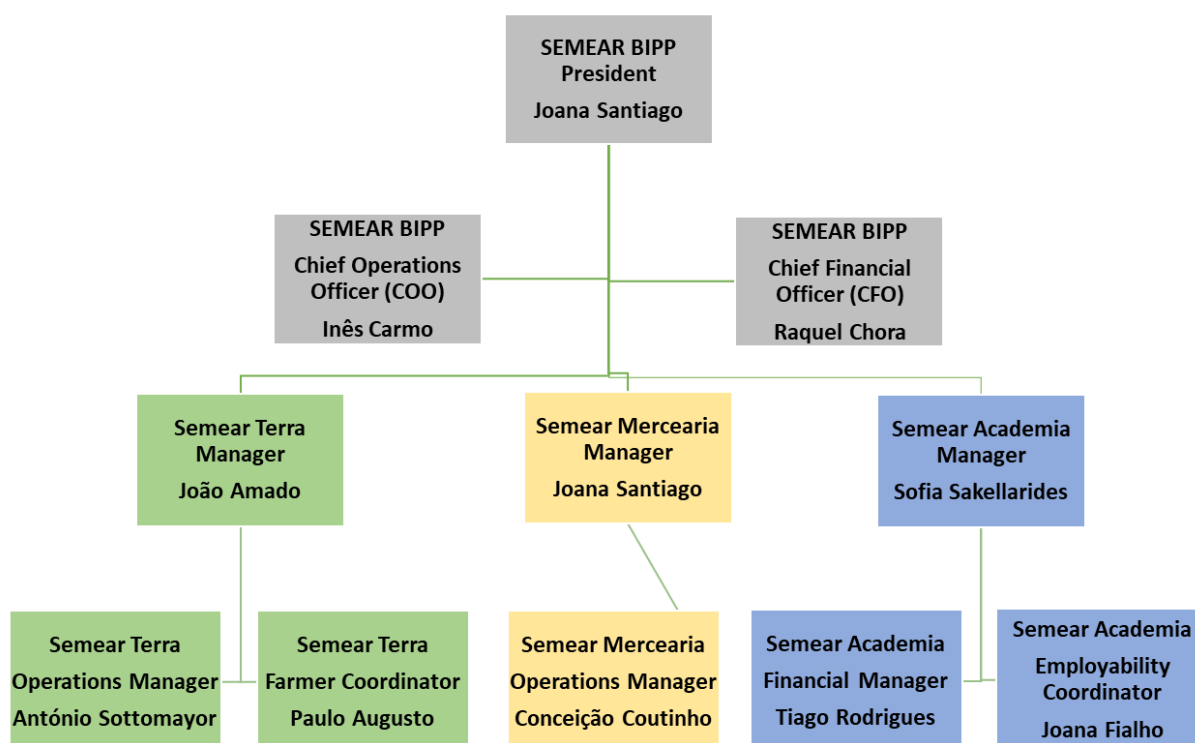
Lawson, Raef. 2020. "Preparing the Finance Function for Technological Change". *Strategic Finance*, October 2020 p. 26-32.

Monteiro, Brad J., and Colgren, David T. 2020. "Tech Trends to Watch". *Strategic Finance*, November 2020 p. 60-61.

Niven, Paul R. 2008. *Balanced Scorecard Step-by-Step for Government and Nonprofit Agencies*. New Jersey: John Wiley & Sons.

IV. Appendixes

Appendix 1. Organizational Chart



Appendix 2. Product Overview Semear Terra

Product	Start Date	End Date	Vegetables	Fruits	Eggs
Cabaz - Normal Size Solidary	01.01.2021	-	6.0 kg	0.0 kg	0.0 kg
Cabaz - Normal Size	01.01.2021	-	6.0 kg	0.0 kg	0.0 kg
Cabaz - Familiar Size	01.01.2021	-	8.0 kg	0.0 kg	0.0 kg
Cabaz - Semear + Fruit Basket	01.01.2021	-	8.0 kg	2.0 kg	0.0 kg
Cabaz - Semear Home Basket	01.01.2021	-	8.0 kg	2.0 kg	1.0 kg

Appendix 3. List of Interviews and Meetings carried out

Date	Duration (minutes)	Topic	Type of Meeting	Semear	Nova SBE
28/05/2020	90	Thesis Kick-Off	Online Meeting	Joana Santiago - President Inês Carmo - COO Helena Estrela - Former CFO	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant Marta Almeida - Project Advisor Inês Pereira - Social Leapfrog Program Joana Costa - Social Leapfrog Program
08/06/2020	120	Semear BIPP Overview	Site Meeting - Semear Academia	Joana Santiago - President Inês Carmo - COO Helena Estrela - Former CFO	Nuno Henriques - Consultant Vinicius Bueno - Consultant Marta Almeida - Project Advisor
07/07/2020	100	Semear Terra	Site Meeting - Semear Terra	Joana Santiago - President Inês Carmo - COO Paulo Augusto - Semear Terra Farmer Coordinator	Nuno Henriques - Consultant Vinicius Bueno - Consultant
29/09/2020	80	Semear Terra	Online Meeting	João Amado - Semear Terra Manager António Sottomayor - Semear Terra Operations Manager Raquel Chora - CFO	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant
07/10/2020	160	Semear Terra	Site Visit - Semear Terra	João Amado - Semear Terra Manager António Sottomayor - Semear Terra Operations Manager Raquel Chora - CFO	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant
08/10/2020	160	Semear Academia	Site Meeting - Semear Academia	Raquel Chora - CFO Tiago Rodrigues - Semear Academia Financial Manager	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant
15/10/2020	180	Visit to Semear Mercearia Warehouse	Site Visit - Semear Mercearia	Conceição Coutinho - Semear Mercearia Operations Manager Joana Santiago - Semear Mercearia Manager Raquel Chora - CFO	Johan Bietmann - Consultant Nuno Henriques - Consultant
16/10/2020	60	Accountant Topics	Site Meeting - Accountant Office	Raquel Chora - CFO Teresa Madeira - Semear BIPP Accountant	Nuno Henriques - Consultant Vinicius Bueno - Consultant
27/10/2020	120	Midterm Presentation	Online Meeting	Joana Santiago - President Raquel Chora - CFO	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant Marta Almeida - Project Advisor Inês Pereira - Social Leapfrog Program Joana Costa - Social Leapfrog Program
27/10/2020	170	Semear Mercearia - Activities Average Time	Online Meeting	Conceição Coutinho - Semear Mercearia Operations Manager	Nuno Henriques - Consultant Vinicius Bueno - Consultant
30/10/2020	120	Semear Academia - Grants	Online Meeting	Joana Santiago - President Inês Carmo - COO Raquel Chora - CFO Sofia Sakellariades - Semear Academia Manager Tiago Rodrigues - Semear Academia Financial Manager Joana Fialho - Semear Academia Employability Coordinator	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant
05/11/2020	60	Semear Academia - Grants	Online Meeting	Raquel Chora - CFO Tiago Rodrigues - Semear Academia Financial Manager	Nuno Henriques - Consultant Vinicius Bueno - Consultant
09/11/2020	120	Semear Academia Model Presentation	Online Meeting	Joana Santiago - President Inês Carmo - COO Raquel Chora - CFO Tiago Rodrigues - Semear Academia Financial Manager Joana Fialho - Semear Academia Employability Coordinator	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant
12/11/2020	30	Semear Academia Budget	Online Meeting	Raquel Chora - CFO	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant
23/11/2020	120	Semear Academia and Semear Mercearia Budget	Online Meeting	Joana Santiago - President Raquel Chora - CFO	Johan Bietmann - Consultant Nuno Henriques - Consultant Vinicius Bueno - Consultant
03/12/2020	120	Semear Strategic Plan	Online Meeting	Joana Santiago - President Raquel Chora - CFO	Nuno Henriques - Consultant Vinicius Bueno - Consultant

Appendix 4. Data Validation

SELECT A PRODUCT:	
Azeite Virgem Extra	▼
Azeite Virgem Extra	▲
Castanhas Em Calda	
Cebolinhas Caramelizadas	
Chutney De Ameixa	
Chutney De Manga	
Confit De Pimentos	
Doce De Frutos Silvestres	
Doce De Morango Com Espumante	▼

Appendix 5. Detailed Balanced Scorecard Semear

Perspective	Strategic Objective	Strategic Performance Measure	Detailed Explanation of the Strategic Performance Measure	Target	Initiatives
Learning & Growth	Improve Communication among Organization	Number of Meetings among Management & Coordinators	Frequent meetings between the management and the coordinators will improve communication flow and alignment within the organization.	48	Set up weekly meetings between top Management and business Units' managers
	Train and Retain Fitting Employees	Percentage of Internal Job Movements	Internal job movements within the organization are a good way of developing the competences of the employees in areas and/or tasks which they are not familiarized with.	20 %	Set up individual meetings with workforce to understand their availability to perform other job activities (e.g., coaching)
		Training Hours per Year	Providing professional training to employees will enable them to become expert at their current activities or even develop new competencies.	200 hours	Provide Excel, Sales and Customer Relationship professional training
		Employee Retention Rate	Being the most important asset of the organization, the retention of employees who totally embrace Semear's purpose is vital for the achievement of the organization's goals.	90 %	<ul style="list-style-type: none"> - Set up individual meetings with workforce to understand their job satisfaction and career plans - Increase compensation and employees' benefits
	Improve Information System Technology	Time Spent to Input Information	This indicator measures whether the new technological tools are reducing the time spent to input information on them and as, a result, improving employee's efficiency.	90 % of previous year	Install systems which agglomerate several operational functionalities

		Information Systems Technology Satisfaction	This survey intends to understand whether the new information system technologies have been improving its users' efficiency and needs.	80 %	
Internal Processes	Guarantee Practical Participation of Students and People with IDD	Volume of Practical Participation on Social Businesses' Activities and Enterprises	Given the importance that this indicator constitutes to the customer's value proposition as well as the professional and social development of the students, it is important that there is significant student's volume of practical involvement on these activities.	200 hours	Increase the number of classes and activities in the business units' locations
		Number of On-the-Job Training Events	It measures the number of on-the-job training events occurring in the Semear Mercearia and Semear Terra which had the participation of students from Academia.	10 events	Set up monthly meetings between Academia coordinators and business units' managers to figure out the availability of students visiting business units' locations
	Increase Operations Efficiency	Number of Products Sold per Worker	This measure indicates whether there has been an increase in efficiency in the social businesses' activities.	360	- Open and start a physical store - Invest in adequate materials and tools, and systems
		Time Needed to Respond to a Client	It measures whether the organization has been able to confirm orders to clients in an adequate time frame and, as a result, improve the customer's purchase experience.	48 hours	Provide Excel and Sales professional training

Customer	Improve Brand Awareness	Number of Volunteers Participating in Semear Activities	Volunteers' work is essential in some organizational activities and it constitutes a good indicator of whether the organization is being able to improve its brand awareness.	Increase 5 % this year	<ul style="list-style-type: none"> - Disclose volunteers' activities via e-mail, telephone, and social media - Provide more volunteering activities during the year
		Social Media Followers	The number of social media followers (Facebook and Instagram) can also be a good indicator regarding Semear's brand awareness.	Increase 20 % this year	<ul style="list-style-type: none"> - Create a Marketing team - Increase the number of social Media posts related to activities performed in Academia
	Increase Customer Retention	Customer Retention Rate	Being one of Semear's weakest aspects, this indicator measures the retention rate of their social businesses' customers to build solid relationships with the customers.	20 %	<ul style="list-style-type: none"> - Develop monthly newsletters about Semear's products, activities, and achievements - Develop Customer Surveys to understand their products' preferences and satisfaction, and service quality - Open and start a physical store
		Training Volume Actual/ Training Volume Budgeted	The top-levels strategic objectives heavily depend on this particular indicator which measures the attendance of students to classes.	85 %	<ul style="list-style-type: none"> - Set up meetings with student's families to show the importance of attending classes - Increase the number of classes/ activities in the business units' locations

Financial	Achieve Financial Sustainability	Revenues / Costs	To achieve financial sustainability, total revenues must be greater than the total costs.	> 1	Install a Costing System which provides a clear overview whether products are sold at a fair price
		Revenues / Donations	Since the organization recognizes donations as revenues, this measure indicates whether the revenues generated by Semear have been greater than the donations received.	> 1	
Mission	Promote Social Inclusion and Job Placement of Students and People with IDD	Number of Students Joining the Labor Market	This indicator measures the number of students who joined the labor market up to 6 months after being graduated.	8	<ul style="list-style-type: none"> - Develop fruitful relationships with employer partners - Disclose the Semear's role and activities in local community and businesses
		Percentage of Students Joining the Labor Market	This indicator measures the percentage of students who joined the labor market up to 6 months after being graduated.	60 %	<ul style="list-style-type: none"> - Develop fruitful relationships with employer partners - Disclose the Semear's role and activities in local community and businesses
		Number of People with IDD Joining Semear Workforce	This indicator measures the number of people with IDD who joined Semear's workforce.	2	Identify job opportunities for adults with IDD within the organization

Appendix 6. Detailed Balanced Scorecard Semear Academia

Perspective	Strategic Objective	Strategic Performance Measure	Detailed Explanation of the Performance Measure	Target	Initiatives
Learning & Growth	Improve Communication among Workforce and Management	Number of Meetings among Academia and other Business Units	Frequent meetings between Academia's coordinators and the other business unit's coordinators will improve communication flow and increase the involvement of students in businesses' activities.	25	Set up biweekly meetings between Academia management and business units' coordinators
	Train and Retain Fitting Employees	Training Hours per Year	Providing professional training to employees will enable them to become expert at their current activities or even develop new competencies.	200 hours	Provide Excel and Customer Relationship professional training
		Employee Retention Rate	Being the most important asset of the Academia, the retention of employees which embrace its purpose is vital for the achievement of the social goal.	90 %	<ul style="list-style-type: none"> - Set up individual meetings with workforce to understand their job satisfaction and career plans - Increase compensation and employees' benefits
Internal Processes	Provide a High Quality and Tailored Education	Volume of Practical Participation on Social Businesses' Activities and Enterprises	It is the possibility that students participate in real business activities what turns Academia's programs so distinctive and valuable, hence it is crucial there is a significant student's practical involvement in these activities.	200 hours	Increase the number of classes and activities in the business units' locations

	Excel at Partners Relationship Management	Number of E-mails and Meetings/Visits with Partners	This indicator measures whether there has been frequent communication between Academia's employability coordinators and the employer partners.	30	Set up biweekly communication between Employability coordinators and partners
		Number of Hours Spent with Partners	This indicator measures the quality of the relationship between Academia's employability coordinator and the employer partners.	50 hours	Set up biweekly communication between Employability coordinators and partners
Students & Partners	Increase Students Retention	Training Volume Actual/ Training Volume Budgeted	The top-levels strategic objectives heavily depend on this indicator which measures the class attendance of students.	85 %	<ul style="list-style-type: none"> - Set up meetings with student's families to show the importance of attending classes - Increase the number of classes and activities in the business units' locations
		Ratio of Students from Academia 2 over Total Number of Students	Since this is the degree which provides better social results, the strategy for the upcoming years includes increasing the number of classes of Academia 2.	54 %	Increase the maximum number of students who attend Academia 2's courses
	Increase the Number of Employer Partners	Number of New Employer Partners	This indicator measures whether the organization has been able to identify new employer partners who are interested in employing Academia's students.	15	Disclose the Semear's role and activities in local community and businesses
		Number of E-mails and Meetings/Visits with Potential Partners	This indicator measures whether there has been a continuous process of identifying and communicating with potential employer partners.	40	Disclose the Semear's role and activities in local community and businesses
Financial	Increase Revenues	Revenue Growth generated from Academia 1 and Academia 2	Even though this is not their main priority, Semear Academia intends to increase the revenues generated from the courses of Academia 1 and Academia 2.	Increase 13 % this year	Increase the maximum number of students who attend Academia 1 and Academia 2 courses

Mission	Promote Social Inclusion and Job Placement of Students	Number of Students Joining the Labor Market	This indicator measures the number of students who joined the labor market up to 6 months after being graduated.	8	<ul style="list-style-type: none"> - Develop fruitful relationships with employer partners - Disclose the Semear's role and activities in local community and businesses
		Percentage of Students Joining the Labor Market	This indicator measures the percentage of students who joined the labor market up to 6 months after being graduated.	60 %	<ul style="list-style-type: none"> - Develop fruitful relationships with employer partners - Disclose the Semear's role and activities in local community and businesses

Appendix 7. Detailed Balanced Scorecard Semear Mercearia

Perspective	Strategic Objective	Strategic Performance Measure	Detailed Explanation of the Performance Measure	Target	Initiatives
Learning & Growth	Improve the Information System Technology	Time Spent to Input Information	This indicator measures whether the new technological tools are reducing the time spent to input information and, as a result, improving employee's efficiency.	Reduce by 90 % this year	Install a system which agglomerates several operational functionalities
	Obtain an equilibrium ratio of People with IDD in the Workforce	Ratio of People with IDD in the Workforce	As a social business, Semear Mercearia also employs individuals with IDD to its workforce, then this indicator measures whether an equilibrium ratio is being achieved.	40 %	<ul style="list-style-type: none"> - Identify job opportunities for adults with IDD within the business unit - Develop a hiring program to attract individuals who

					truly embrace Semear's purpose
Internal Processes	Provide the Flexibility of Choice of Products while Ensuring a Correct Pricing Strategy	Number of Personalized Baskets Sold / Number of Baskets Sold from the Catalogue	Providing the option of personalizing the baskets is a feature well-appreciated by customers, then this indicator measures whether this flexibility option is being offered.	90 %	Install a system which indicates whether the customers' personalized baskets are feasible for the organization in terms of pricing and purpose
		Number of Orders Received	This indicator measures whether this customizing feature is being able to increase the number of orders received.	Increase 5% this year	- Develop a marketing plan to attract new customers - Open and start a physical store
	Guarantee Practical Participation of Students and People with IDD	Percentage of Products Sold with the Participation of Students and People with IDD	Personalized baskets can be composed of external products, then this indicator measures the percentage of the products sold which had the participation of the students and people with IDD.	70 %	Increase the number of on-the-job training events to ensure students' participation in Mercearia's activities
		Volume of Practical Participation in Mercearia	Given the importance that this indicator constitutes to the customer's value proposition as well as the professional and social development of the students, it is important that there is significant student's volume of practical involvement on Mercearia's activities.	Increase 5 % this year	Increase the number of on-the-job training events to ensure students' participation in Mercearia's activities
	Increase the Number of Tons of Food Waste Reused	Number of Tons of Food Waste Reused	This indicator also constitutes a relevant component of the customer's value proposition, then it measures the number of tons of fruit donated by local producers which were transformed into selling products.	Increase 5% this year	Establish new partnerships with local farmers

Customer	Increase Customer Satisfaction	Customer Satisfaction Survey Rating	This survey intends to understand whether the products serviced, and the customer experience have met their expectations and satisfaction.	70 %	Develop Customer Surveys to understand products' preferences and satisfaction, and service quality
	Improve Brand Awareness	Social Media Followers	This indicator measures any change in the number of social media followers (Facebook and Instagram) as this is a good indicator regarding Semear Mercearia's brand awareness.	Increase 20 % this year	Create a Marketing team
		Number of Volunteers Participating in Mercearia Activities	Volunteers' work is an important process in the assembling of the Christmas baskets, and it constitutes a good indicator whether the organization is being able to improve its brand awareness.	Increase 5% this year	Announce volunteers' activities via e-mail, telephone, and social media
		Number of Orders Received from Potential New Clients	This indicator measures whether the Semear Mercearia has been receiving orders from potential new clients.	Increase 10 % this year	Develop a marketing plan to attract new customers
Financial	Increase Profitability	Profit Margin (%)	This indicator measures whether the Semear Mercearia has been applying an adequate profit margin to its products.	30 %	Install a Costing System which provides a clear overview whether products are sold at an appropriate profit margin
		Revenues	By applying a correct pricing strategy, revenues generated from Semear Mercearia is a good indicator of profitability.	Increase 10 % this year	

Appendix 8. Detailed Balanced Scorecard Semear Terra

Perspective	Strategic Objective	Strategic Performance Measure	Detailed Explanation of the Performance Measure	Target	Initiatives
Learning & Growth	Obtain an equilibrium ratio of People with IDD in the Workforce	Ratio of People with IDD in the Workforce	As a social business, Semear Terra also employs individuals with IDD to its workforce, then this indicator measures whether an equilibrium ratio is being achieved.	50 %	<ul style="list-style-type: none"> - Identify job opportunities for adults with IDD within the business unit - Develop a hiring program to attract individuals who truly embrace Semear's purpose
	Invest in New Materials and Equipment	Number of Hectares in which Water Irrigation System were applied	This indicator measures whether the investment made in water irrigation systems is being applied.	1	Install a water irrigation system to facilitate Terra's daily production processes
		Number of Square Meters in which Greenhouse System were applied	This indicator measures whether the investment made in greenhouse system is being applied.	20	Install new greenhouse systems to accelerate and improve the production process
	Improve Information System Technology	Time Spent in Planning Deliveries	This indicator measures whether the new technological tools are reducing the time spent in planning deliveries and as, a result, improving employee's efficiency.	Reduce by 20 % this year	Install a technological system which plans the daily home-delivery travels
Internal Processes	Guarantee Practical Participation of Students and People with IDD	Percentage of Products Sold with the Participation of Students and People with IDD	Baskets can be composed of external products, then this indicator measures the percentage of the products sold which had the participation of the students and/or people with IDD.	60 %	Increase the number of on-the-job training events to ensure students' participation in Terra's activities

		Volume of Practical Participation in Terra	Given the importance that this indicator constitutes to the customer's value proposition as well as the professional and social development of the students, it is important that there is significant student's volume of practical involvement on Terra's activities.	Increase by 5 %	<ul style="list-style-type: none"> - Announce volunteers' activities via e-mail, telephone, and social media - Provide more volunteering activities during the year
	Excel at the Production of Biological Products	Percentage of Defective Products	Having good quality products is essential for Semear Terra, then this indicator measures the percentage of defect products produced which cannot be sold to end-customers.	10 %	Invest in adequate tools, systems, and agriculture training
		Number of Hectares Used for Biological Production	Increase the number of biological products produced is essential for Semear Terra, then this indicator measures the number of hectares that are currently being used to produce crops.	7	Expand the number of hectares being used in production
		Percentage of Products Bought to Suppliers	This indicator measures the percentage of products which are bought to local suppliers due to lack of stock, poor quality, etc.	25 %	Invest in adequate tools, systems, and agriculture training
	Increase Operations Efficiency	Baskets Sold per Kilometre	Home-deliveries require a good route planning, then this indicator measures the efficiency of Semear Terra's deliveries.	0,25	Install a system which plans the daily home-delivery travels
		Number of Baskets Sold per Hectare	This indicator measures the productivity of Semear Terra's production.	60	Invest in adequate tools, systems, and agriculture training
Customer	Improve Brand Awareness	Social Media Followers	This indicator measures any change in the number of social media followers (Facebook and Instagram) as this is a good indicator in estimating Semear Terra's brand awareness.	Increase by 10% this year	Create a Marketing team
		Number of New Clients	This indicator measures the number of new clients as this is a good indicator in estimating Semear Terra's brand awareness	200	Develop a marketing plan to attract new customers

		Number of Website Visitors	This indicator measures the number of website visitors as this is a good indicator in estimating Semear Terra's brand awareness.	Increase by 10 % this year	Create a Marketing team
	Increase Customer Retention	Customer Retention Rate	Being one of the aspects that Semear Terra needs to improve, this indicator measures the retention rate of Semear Terra's customers.	20 %	<ul style="list-style-type: none"> - Develop monthly newsletters about Semear's products, activities, and achievements - Develop Customer Surveys to understand their products' preferences and satisfaction, and service quality
Financial	Achieve Financial Sustainability	Revenues / Costs	To achieve financial sustainability, Semear Terra's revenues must be greater than its costs.	> 1	Install a Costing System which provides a clear overview whether products are sold at a correct price
		Revenues / Donations	Since donations are recognized as revenues, this measure indicates whether the revenues generated by Semear Terra have been greater than the donations received.	> 1	

Appendix 9. Dashboard: Selecting Total Strategic Objectives of Internal Processes Perspective in Semear Balanced Scorecard

SELECT A BUSINESS UNIT:		SELECT A PERSPECTIVE:		CHOOSE AN OBJECTIVE:	CHOOSE A YEAR:	CHOOSE A MONTH:	Generate Strategy Map
Semear		Internal Processes		Total	2022	2	

Objectives	Performance Measures	Target	Current Result	Responsible	Analysis
Guarantee a Practical Participation of Students and People with IDD	Volume of Practical Participation on Social Businesses' Activities and Enterprises	200h	31h	Ines	✗
Guarantee a Practical Participation of Students and People with IDD	Number of On-the-Job Training Events	10	32	Ines	✓
Increase Operations Efficiency	Number of Products Sold per worker	360	52	Ines	✗
Increase Operations Efficiency	Time Needed to Respond to a Client	48h	7h	Ines	✓

Appendix 10. Dashboard: Selecting a Particular Strategic Objective of Internal Processes Perspective in Semear Balanced Scorecard

SELECT A BUSINESS UNIT:		SELECT A PERSPECTIVE:		CHOOSE AN OBJECTIVE:	CHOOSE A YEAR:	CHOOSE A MONTH:	Generate Strategy Map
Semear		Internal Processes		Guarantee a Practical Participation of Students and People with IDD	2022	2	

Performance Measures	Target	Current Result	Responsible	Analysis
Volume of Practical Participation on Social Businesses' Activities and Enterprises	200h	31h	Ines	✗
Number of On-the-Job Training Events	10	32	Ines	✓

CHOOSE A PERFORMANCE MEASURE:
Volume of Practical Participation on Social Businesses' Activities and Enterprises

Initiatives
Increase the number of classes and activities in the business units' locations

Appendix 11. Data Dictionary

Select a Business Unit: Semear	Select a Perspective: Internal Processes	Choose an Objective: Guarantee Pratical Participation of Students and People with IDD
Description:		
Guaranteeing practical participation of students and people with IDD constitutes an integral part of the value proposition delivered to the end-customer. Moreover, it stimulates the practical and teamwork capabilities of those people and contributes to integrating them in a social environment, which is directly linked to the organization's mission.		
Choose a Performance Measure: Volume of Practical Participation on Social Businesses' Activities and Enterprises	Responsible: Ines	Frequency Monthly
Description:		
Given the importance that this indicator constitutes to the customer's value proposition as well as the professional and social development of the students, it is important that there is significant student's volume of practical involvement on these activities.		
Formula:		
1		
Data Source:		
The data can be extracted from the databases, "DB_AttendanceCheck" and "DB_Cronograma", in the Academia Budgeting and Costing System Model.		
Target:		
200		
Initiatives:		
Increase the number of classes and activities in the business units' locations		